THE BIRDS OF ST. MATTHIAS ISLAND BY ERNST HARTERT.

North and a little to the west of New Hanover lies, between 1° 17′ and 1° 32′ southern latitude, and between 149° 30′ and 149° 46′ eastern longitude, the island of St. Matthias or Mussau, also called Prince-William-Henry Island. The island consists of a plateau, partly covered with thick forest, here and there grassland with bushes and *Pandanus*, and elevated coralline formation, surrounded by a sandy beach with coconut palms and native villages; the whole is encircled by a double ring of narrow coral-reefs. The natives are among the worst of these islands.

Only once an ornithologist landed on the island: Dr. O. Heinroth, then a member of the "German South Sea Expedition by Br. Mencke," landed there March 29th, and two days after the camp was treacherously attacked, Mr. Mencke and his friend Caro were killed, Dr. Heinroth was wounded and lost some skins and note-books. In spite of this disaster, which brought the explorations to an untimely end, Dr. Heinroth succeeded in discovering and bringing home the most striking, peculiar birds of St. Matthias Island, viz. Halcyon matthiae, Monarcha menckei, and Rhipidura matthiae. These birds were described and figured in Journ. f. Orn. 1902. Since then no collector of birds has visited St. Matthias, except Dr. Duncker during his researches on marine zoology, who shot an Orthorhamphus (rectius Esacus) magnirostris.

It was therefore Lord Rothschild's desire to have a good collection from the island, and at last A. F. Eichhorn sent a fine collection of 38 species, all beautifully prepared skins. Unfortunately the blackbird and several others were only obtained in single specimens, but we are very thankful for what we have received from this out-of-the-way island, where collecting is perhaps even now a risky undertaking.

Through Eichhorn's collecting we know now 39 species of birds to inhabit St. Matthias. It is peculiar that no Zosterops was found, and I am inclined to think that it must exist, and might have been overlooked. It is also peculiar that no Owls, no Corvus, no Cisticola were found; on the other hand the discovery of such unexpected species as Phylloscopus and two kinds of Turdus is of the greatest interest. Even if a land-bird or two have been overlooked, the number of resident species will probably not be greatly enlarged, while doubtless a number of other shore-birds, migrants from the north, will occur on the shores during the winter months, but they will not alter the zoogeographical aspect of the island.

Zoogeographically St. Matthias is obviously nearest to New Hanover (anteà, pp. 194-213), but there is a very interesting affinity in certain cases to the Admiralty Islands or Manus: *Micropsitta meeki proxima* is very close to *M. meeki meeki from Manus*, the still doubtful form of *Edolisoma morio* (No. 31) is very much like *E. morio admiralitatis*, and the *Pachycephala* (No. 35) is, it seems to me, nearest to *goodsoni* from Manus. The number of peculiar forms is great: 3 were discovered by Heinroth, 7 were described by Lord Rothschild and myself

in Bull. B.O. Club, xliv. pp. 50-53 (1924), and in the following pages I have named again 7 new forms, so that 17 forms are now known only to occur on St. Matthias, and at least two others could so far not finally be determined, for want of series.

The literature on St. Matthias Island is thus small:

1902: O. Heinroth, "Ornithol. Ergebnisse der I. Deutschen Südsee-Expedition von Br. Mencke," in *Journ. f. Orn.* 1902.

1922: G. H. Martens, "Vög. der Südsee-Expedition der Hamburger Wissenschaftl. Stiftung 1908–1909," in *Archiv. f. Naturg.* 1922 A, Heft 6 (edited by Duncker, after Martens' death).

1924: Rothschild and Hartert, description of 7 new birds from St. Matthias Island, in *Bull. B.O. Club*, xliv. pp. 50-53.

1. Tringa hypoleucos L.

18. 20. 27. vii. 1923. Also Squally Island.

2. Charadrius dominicus fulvus Gm.

♀. 14. vii. 1923.

3. Esacus magnivostris (Vieill.). 1

A specimen was shot on the shore of St. Matthias Island 10.ix.1908 by Dr. Duncker (Archiv. f. Naturg. 1922, Heft 7, p. 52).

(I see no reason for separating "Orthorhamphus" from Esacus, the more upturned bill of the latter being a good specific character, but it is needless to separate the two genera.)

4. Eulabeornis tricolor tricolor (?).

Rallina tricolor Gray, Proc. Zool. Soc. London 1858, p. 52 (Aru Islands, specimen collected by Wallace 2).

3. 7. vii, 1923. "Iris deep red. Bill dullish yellow-green. Feet dull greenish yellow."

This specimen has the neck a little lighter than in our New Guinea examples, and it is smaller, bill shorter, wings only 132 mm. (wings in New Guinea 145–157,

¹ Oedienemus magnivostris Vieillot, Nouv. Dict. d'Hist. Nat. xxiii. p. 231 (1819—No locality! Mathews, Nov. Zool. xviii. p. 226, substituted "Binongka, Celebes" as typical locality. Such arbitrary fixing of type localities cannot be accepted. If a type locality is fixed, it must be the one from which the bird most likely came, that was described, or might have come. But Binongka is one of the Tukang Besi Islands, not on Celebes at all, but about 200 km. south-east of Celebes, and—unless Mathews discovered a reason that it was so, of which he left us uninformed—it is certain that Vieillot received no bird from these islands which were first explored, so far as the avifauna is concerned, by Heinrich Kühn: cf. Nov. Zool. 1908).

² This specimen, the type of Rallina tricolor, is not in the British Museum. Salvadori, in 1882, said he had examined the type, but I think this must be an error. The Tring Museum, however, bought a specimen from the late H. Whitely marked "Aru Islands," and this seems to be the type of R. tricolor. It is a typical "Wallace's skin," the neck, position of feet, etc., being "Wallacean." Probably the specimen was erroneously not kept by the British Museum and sent with other "duplicates" to Whitely for sale. This specimen has a rather dark throat and neck, but is probably not different from the New Guinea examples. This was accepted by Salvadori, though he said that his Aru specimen (collected by Beccari 1875) had the back more olivaceous than the three New Guinea ones. Our supposed type, however, is on the back exactly like Papuan specimens.—E. H.

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Only three forms may so far be looked upon as certainly distinguishable:

A. E. tricolor tricolor (Gray): Apparently Aru Islands, New Guinea, and neighbouring islands.

(Mathews, B. Australia i. p. 205, 1911, proposed for the "New Guinea subspecies" the name E. tricolor grayi, saying that the type was No. 187 in his collection. Apart from the detail that the type is labelled by the author himself 197, and not 187, that name is virtually a nomen nudum. No distinguishing characters are given, and the new name was evidently given under the impression that Sharpe had separated the New Guinea form from the Aru one. Sharpe, however, did not compare the New Guinea birds with Aru Islands birds, but he only talks of a specimen from Port Moresby as having white bars on the abdomen (!), while he says that a Dorey specimen is like the Australian birds! The type of "Eulabeornis tricolor grayi" is a New Guinea skin in native preparation, presumably from Dutch Papua, which has not white, but buff abdominal bars, and only a few of them!)

- B. E. tricolor robinsoni Math. Australia (N. Queensland, chiefly Cape York Peninsula). Upperside more brownish.
- C. E. tricolor victa (Hart.) Tenimber, Koer, and Dammar Islands, very much smaller.

(Sharpe, Cat. B. Brit. Mus. xiii. p. 79, says that he described a ♂ "type of species," but the type was a ♀ from Aru!)

5. Porzana cinerea meeki subsp. nov.

A very dark form, throat and longitudinal patch along middle of abdomen only white, jugulum and breast ashy grey, flanks dark brown, under tail-coverts in two specimens dark brown, in the third (? female, though marked male) more russet, as in other subspecies. Upperside dark, head brownish grey-black, not as clear blackish as in *leucophrys*. Wing 97, 91, 91 mm., middle toe without claw 42, 42, 40, tarsus 46·5, 47, 47·5 mm. "Iris dark red. Bill yellowish brown and black. Feet greenish slate-colour, yellowish green, dull bluish green" (A. F. Eichhorn). Type 3 ad., St. Matthias Island, 30. vi. 1923, No. 8619.

Named after Albert S. Meek, the organiser of Mr. Eichhorn's collecting expeditions, since he himself is unfortunately now unable to undertake such travels.

Three specimens were collected by Mr. Eichhorn, in June, all marked as males, but I suspect two being females.

This form is apparently very distinct from all the other named subspecies. The latter were discussed by Ingram in Bull. B.O. Club xxix. pp. 21–22, and the most recent short review is that of Mathews and Iredale in Manual B. Australia p. 202 (1921). Neither of them is, however, explicit enough. Ingram makes no mention of the distribution of the "typical," i.e. first-named form, and Mathews and Iredale, who designated Java as the most likely typical locality, do not mention any other place for it, while the Javan form is undoubtedly spread

not only over Java, but also Sumatra, Malay Peninsula, and I think the Lesser Sunda Islands and Moluccas, as well as Celebes. From New Guinea I have not examined specimens, except one said to be from Port Moresby, from Goldie; this bird is not like our St. Matthias Island ones, but seems to me to be indistinguishable from Australian specimens, and so is in my opinion the one from Timor in the British Museum.

It is difficult to believe that a specialised form of such a widespread bird as *Porzana cinerea* should be restricted to the little island of St. Matthias, but a male collected by Cayley Webster on New Hanover is underneath as white as most others, not grey like meeki! Unfortunately Eichhorn failed to come across the species on New Hanover, and we have no specimens from other islands of the Bismarck Archipelago.

P. cinerea parryi Mathews, from N.W. Australia, is not separable from P. c. leucophrys, as far as I can see.

So far, therefore, only the following forms appear to be recognisable:

Porzana cinerea cinerea (Vieill.): Java, Sumatra, Malay Peninsula, Lesser Sunda Islands, and apparently Celebes and satellites.

[Celebes birds have very large bills, but also P. c. cinerea has as a rule large bills. Celebes birds can only be united with cinerea, but are not leucophrys! If not cinerea they are a separate Celebes form!]

Porzana cinerea ocularis Ingram: Philippine Islands.—Very similar to P. c. cinerea, but head generally a little darker, sides of breast often more grey, flanks and under tail-coverts darker. Tarsus averages longer, but is not constantly longer! Perhaps also Guam and Ruk!

[Ruk and Guam birds are not like cinerea, but I can at present—with a series, but all bad skins (!) available—not say how they differ, if at all, from ocularis.]

Porzana cinerea brevipes Ingram: Iwotimo and Dionisio, Vulcano Islands, south of Japan.—Tarsus shorter, flanks and under tail-coverts more rufescent, bill deeper.

Porzana cinerea leucophrys Gould: Northern parts of Australia: N.W. Australia, Northern Territory, North Queensland (Cape York Peninsula).—Bill small. Head in adults black, underneath generally darker. To this form seem to belong the specimens (one adult!) from New Guinea ("Port Moresby") and one from Timor. Moluccan birds seem somewhat intermediate.

[P. c. parryi Mathews is not separable from leucophrys. Specimens from Buru and Batjan are somewhat intermediate between leucophrys and cinerea. The bills are not as large as in the Celebes birds, but generally a little bigger than in the average Australian ones. Colour on underside (under tail-coverts and flanks) as in Australian birds, i.e. a little duller and darker than in P. c. cinerea.]

Porzana cinerea tannensis (Forst.): From Fiji and Samoa.—Head and neck without or with very little slaty grey, very little, if at all, different from the back, on which the blackish centres are not so well developed. In the similarity of head and back these birds remind one of P. c. meeki, but the latter has the upperside much darker, a bluish grey (not white) chest, and much darker flanks, and under tail-coverts, which are rather light and bright in tannensis.

Porzana cinerea meeki: See above.

Porzana cinerea ingrami Brasil: New Caledonia.—I have only seen one

specimen with a damaged bill in the British Museum, which does not seem to have the bill as small as described by Brasil.

The undecided characteristics of some of these forms illustrate again what becomes more and more evident the more we get series from all sorts of localities: That there are very distinct and constant local forms, but also others which do not show well-recognisable characters, partly forming connecting links between outstanding subspecies, partly not, some series of specimens not being always absolutely like series from other localities, but having no good characters to recognise them by, and therefore they are better not given special names, the object of a name being a failure if such specimens cannot be generally recognised. The study of this little group also shows how important it is to have well-prepared and equally shaped skins in series, bad specimens sometimes not showing what good ones can show.

6. Ducula rhodinolaema (Scl.).

See anteà, p. 196.

8 \mbox{CP} ad., June and July 1923, 1 \mbox{P} immat. 27.vi. The young bird is at once recognisable by its more pointed and slightly brown-tipped outer rectrices, some narrow whitish fringes on some of the wing-coverts, paler throat, and the colour of the upperside being more like that of a $D.\ van-wycki$.

7. Ptilinopus solomonensis johannis (Scl.).

Anteà, p. 197.

2 ♂ ad., 1 ♂ juv., 3 ♀ ad., June and July.

"Iris pale greenish yellow. Bill pea-green, on other labels slaty blue, probably this meaning slaty blue with pea-green distal end. Feet dark purplish red."

Wings & ad., 123-126 mm. Also Squally or Storm Island!

The distribution of this bird is peculiar. It was discovered and only known from the Admiralty Islands (Manus). Webster discovered it on New Hanover, Heinroth on Nusa, Eichhorn got it on Rook, St. Matthias, and Squally Islands, as well as on Manus and New Hanover. *P. s. solomonensis* from the Solomon Islands is closely allied, but the lilac frontal patch is much darker, the wing averages (but is not always) shorter.

8. Ptilinopus insolitus inferior subsp. nov.

Formae *Ptilinopus insolitus insolitus* dictae persimilis, sed paullo minor, rostro minore, colore russato flexuram alae cingente distincto, tubere frontali minore.

Hab.: St. Matthias Island, type \Im ad., 28.vii.1923. A. F. Eichhorn coll. No. 8688.

A series of nine adults and one jun., June and July.

"Iris creamy white. Bill pale greenish yellow. Feet plum red."

The wings measure 118-125 (females being smaller), in nine New Hanover specimens 122-130, in twelve from Duke of York, New Hanover and New Britain 125-138, once even 140 mm. The bill is clearly smaller in the St. Matthias series, and there is, surrounding the bend of the wing, a russet-brownish wash, which is only indicated, if at all visible in the birds from the other islands.

The orange patch on the abdomen seems to be generally a little deeper in colour, but this is a doubtful distinction, as it varies a good deal. The red frontal knob is not so elevated as in the skins from other islands. The measurements of the wings would seem to indicate that the New Hanover specimens were intermediate between P. i. insolitus (cf. anteà, p. 197), substituted locality New Ireland, and P. i. inferior, but a larger series is necessary to prove this!

9. Gallicolumba beccarii eichhorni subsp. nov.

Gallicolumba subspeciei G. beccarii johannae dictae persimilis, sed alis brevioribus, collo antico pectoreque albidioribus distinguenda.

♂ ad.: Very similar to G. beccarii johannae (anteà, p. 198) but wings shorter (in six males 104–108 mm., as against 109, 110, 111, 112, 113 in johannae), and the whitish breast-shield more white: breast white for about 2 cm., crop and foreneck paler grey. Type: ♂ 7.vii.1923. A. F. Eichhorn coll. No. 8644.

"Iris dark brown. Bill black. Feet bright purplish red, plum red, or cerise."

Eichhorn sent six males, five from Matthias, one from Storm Island, shot in June and July. Also a young bird, marked female, not quite full grown. The upperside is brown with a greenish tinge and glossy, but some feathers have rust-brown edges, on the head and sides of the neck some blue-grey feathers are putting in their appearance. Wing-coverts and secondaries rusty-brown with much lighter tips. Underside brownish salmon-buff, jugulum darker, throat almost whitish, flanks brown.

10. Macropygia rufa goodsoni subsp. nov.

Subspeciei *Macropygia rufa krakari* simillima, sed maculis nigrescentibus rectricum exteriorum infra saturatioribus, fere nigris, necnon rostro paullum minore distinguenda.

Agrees in colour best with $Macr.\ rufa\ krakari,^1$ the underside being generally slightly lighter than in $M.\ rufa\ rufocastanea$ from the Solomon Islands, and wings of the same length (3 144–150, \$\Q24\$ 143–147 mm.), but the slate-coloured or blackish spots on the lateral rectrices of a deeper colour, almost black, and the bill in the series slightly smaller.

Type: 3 ad., 5. vii. 1923. A. F. Eichhorn coll. No. 8636.

Hab.: St. Matthias and Squally or Storm Islands.

"Iris pinkish red, red, or reddish yellow. Bill black. Feet red, cherry red, dark burnt red."

Eichhorn collected six males, two females on St. Matthias and one male on Squally Island.

11. Chalcophaps stephani stephani Rchb.

Anteà, p. 198.

6 ♂, 2 ♀, St. Matthias Island, June and July 1923. ♂♀ Storm or Squally Island, 11.12.viii.1923.

These specimens agree with those of other localities, though not a single male has the wing longer than 147 mm., one 145, most only 142 mm. The length of wing, however, varies very much individually in other localities, only

¹ Rothschild and Hartert, Nov. Zool. 1915, p. 28, from Dampier or Krakari Island.

in *mortoni* from the Solomon Islands it is constantly greater, i.e. over 150, generally about 153-156 mm.

There is, however, another very distinct subspecies of *C. stephani*, the one from Celebes, which has the tail and upper tail-coverts much brighter reddish rufous, an obvious difference, apparently overlooked by nearly all ornithologists, myself included. This form must be called: *Chalcophaps stephani wallacei* Brüggem. 1876.

12. Caloenas nicobarica nicobarica (L.).

Columba nicobarica Linnaeus, Syst. Nat., Ed. x. p. 164 (1758—Ex Albin, Nicobar Islands).

4 ♂♀ ad, June 1923. The iris is described on the labels as "dull brownish yellow, brown, and dark grey," the feet as dark purplish red, bill black.

13. Demigretta sacra (Gm.).

A dea sacra Gmelin, Syst. Nat. i. 2. p. 640 (1789—Tahiti! Ex Latham). Nov. Zool. 1914, p. 285.

3 12.vii.1923, in the slate-coloured plumage, with two white spots on the throat.

Also on Squally Island.

14. Accipiter hiogaster dampieri (Gurney).

Anteà, p. 200.

d ad., 27. vii. 1923.

♀ juv. 7. vii. 1923.

3 ad. wing 199 mm. "Iris dark brown. Bill black. Feet deep yellow."

15. Micropsitta meeki proxima R. & H.

Micropsitta meeki proxima Rothschild and Hartert, Bull. B.O. Club, xliv. p. 50 (1924—"St. Matthias and Squally Islands." Type from St. Matthias).

10 ♂♀ ad., St. Matthias, May and June 1923. "Iris dark brown, bill light horn-colour, feet light horn-colour or pale ashy blue."

2 39 Squally or Storm Island, 18. viii. 1923. "Iris brownish yellow, bill slate-blue, feet dull horn-colour."

This most interesting little Parrot is very closely allied to M. meeki meeki from Manus (Admiralty I.), but the sides of the head are lighter, not so blackish grey-brown, more yellowish grey, the yellow superciliary lines are distinct and wider, and more or less clearly connected across the forehead by a yellowish band. Wings longer, in ten males 65–67, in one \mathfrak{P} 65, in another 63 mm., while the wings in our meeki measure 59–61.5 (not 5–961.5!) mm.

(See description of M. meeki meeki Nov. Zool. 1914, p. 289.)

The—for the size of the bird—enormous feet are of course connected with the habit of these tiny Parrots of running up and round the stems of the trees like Nuthatches and Tree Creepers.

16. Trichoglossus haematodus flavicans Cab. & Rehw.

Anteà, p. 201.

♂♀ 29, 30. vii. 1923.

Also common on Squally or Storm Island.

Neither of the two specimens from St. Matthias deserves very much the

name "flavicans," though the male is purer grass-green, the female having a yellow tinge. Among the Storm Island skins two are quite yellowish, the other four grass-green. Cf. antea, p. 201, and Nov. Zool. 1914, p. 290.

17. Halcyon matthiae Heinr.

Halcyon matthiae Heinroth, Journ. f. Orn. 1902, p. 438. Pl. VIII. fig. 1 (St. Matthias Island).

5 \circlearrowleft , 5 \circlearrowleft end of May and June. "Iris dark brown. Upper bill black, lower white, cutting edge and distal third black. Feet dull slaty, dull slaty blue, dull black." Wings \circlearrowleft 108–110, once 113, \circlearrowleft 107–113 mm.

The plumage is well described by Heinroth, who brought home a single specimen, shot in March on St. Matthias Island. Rump and upper tail-coverts are greenish blue, almost of the same colour as the tail, not light sky-blue, as in the figure in the Journal für Ornithologie. The crown, in fresh plumage, is rusty buff, as a rule darkest on the nape, but this colour fades, so that the crown is nearly white in worn plumage. The eyelids and spot behind the eyes, as well as the ring around the crown are black. The whole underside is pure white, without any black edges to any feathers. The amount of black on the crown varies from one small spot near the occiput to one large spot in the middle and a number of smaller ones all over the crown.

Halcyon albicilla saurophaga occurs also on Squally Island, where H. matthiae too is found. Though it is not known that both forms breed there, we must not treat H. matthiae as a subspecies of H. albicilla and saurophaga, and I cannot see that it can be united into the same chain of forms with any other known Kingfisher. See for further remarks in the list of birds from Squally Island.

This fine Kingfisher is common on St. Matthias Island.

18. Halcyon sancta sancta Vig. & Horsf.

Halcyon sanctus Vigors and Horsfield, Trans. Linn. Soc. London, xv. p. 206 (1827—"Australia"; evidently N.S. Wales; cf. Mathews, List B. Australia, p. 149).

2 \, 6., 23. vi. 1923.

19. Alcedo atthis pelagica Stres.

Anteà, p. 203.

3 ♂ ad., 2 ♀ ad., 3 ♂♀ juv., June and July 1923.

Wings 67-71.5 mm.—In the list of the birds of New Hanover I omitted to say that Eichhorn sent us 1 3, shot 23.viii.1923, wing, 71 mm.

1 3 was shot on Squally Island.

20. Merops ornatus Lath.

Anteà, p. 205.

One female, 20. vii. 1923. Middle tail feathers worn, some quills moulting, also some moult on body plumage.

21. Eurystomus orientalis neohanoveranus (?).

Anteà, p. 205.

♀ juv., 11.vii.1923.

There is hardly any doubt that this is a specimen of E. o. neohanoveranus, but without adult birds this is not absolutely certain. Nearly the whole culmen is blackish, the feathers of the back are mixed brown, greenish and purplish-blue.

22. Hemiprocne mystacea aëroplanes Stres.

Anteà, p. 206.

♀ 4.vii.1923. Wing 220.5 mm.

Though separable on an average, some New Guinea examples cannot be separated, having the wings not longer and the back equally pale.

23. Collocalia fuciphaga vanicorensis (Quoy et Gaim.).

See Nov. Zool. 1924, p. 206 (anteà).

An adult male was shot 18.vii.1923. Like the specimens from New Hanover it seems to me to belong to *vanicorensis*. The tarsus is bare of feathers, the wing measures 120 mm.

24. Collocalia francica eichhorni subsp. nov.

Collocalia francica fascia uropygiali albida lata, plane distincta a formis omnibus orientalibus distinguenda.

The specimens from St. Matthias Island (and New Ireland) differ from the other orientalforms (spodiopygia, assimilis, townsendi, terraereginae, and reichenowi) by the more pronounced, fairly wide, brownish white band across the rump, and somewhat short wings.

Stresemann (Nov. Zool. 1912, p. 350) described Collocalia francica reichenowi as inhabiting the Solomon Islands, New Ireland, and New Britain, but as his type was from Guadaleanar (Solomon Islands), I restrict the habitat to the latter, as far as we know at present. Only two specimens from the Solomon Islands are known, both from Guadaleanar, one in the British Museum, one at Tring; both have the rump band narrower, and the underside more brownish. I therefore name the birds from St. Matthias Island C. francica eichhorni. Type: 3 ad., St. Matthias 10. vi. 1923. No. 8532 of the Meek collections, collected by Albert F. Eichhorn. Wing & 100, 103, 103.5, \$\Pi\$ 102, 102, 102 mm. Eichhorn sent nine specimens, but three are moulting their primaries, so that their wings The moulting birds were shot in June. cannot be measured satisfactorily. Three skins from New Ireland, collected January 1924, are perfectly similar to the St. Matthias ones, but the wings measure 102 ("♂") and 107 ("♀")! The wing of the third is damaged. No doubt they must belong to C. f. eichhorni, and so must the one from New Britain with a wing said to measure 100 mm., but Reichenow's measures are as a rule very short.

25. Monarcha menckei Heinr.

Monarcha menckei Heinroth, Journ. f. Orn. 1902, p. 451. Pl. IX. fig. 1 (St. Matthias Island).

4 & ad., 1 \(\text{ad.}, 5 \) immature, St. Matthias Island, end of May and June. "Iris dark brown. Bill slaty blue, chalky blue. Feet slaty blue."

This most peculiar species is, as already stated by Dr. Heinroth, not rare on St. Matthias Island, but only one skin was saved, the others being lost during the attack. The forehead, the eyes, ring round eyes, and a spot on the ear-coverts are black, the whole rest of the upperside from the crown to and including the upper tail-coverts is snow-white. The wings are black, the three innermost secondaries, tips of wing-coverts, with the exception of the median series, and edges of primary-coverts white. Tail-feathers black, tips white for about

17-20 mm. on the outermost pair, the white tips decreasing in extent towards the middle, the central pair being entirely black, the next one also, with or without a narrow white border. Throat black, sometimes with a few white feathers, rest of underside, including under wing and under tail-coverts white. The tail is strongly rounded. Wing adult males 71.5-74, adult female 68 mm., tail 63.5-65.5 mm. The sexes are alike in colour.

The young bird, however, is quite different, the whole upperside from the bill to the tail is black, some of the feathers with ash-grey edges, these latter being apparently remains from the very first nesting plumage, in which also the wing-coverts seem to have grey-brownish fringes instead of white tips, and the quills greyish-brown edges. Four of the juvenile birds have the upperside white and black. The youngest bird with entirely black upperside has the basal half of the under mandible "brownish yellow." This young bird has some resemblance with the adult of Monarcha pileatus buruensis, which, however, differs widely in having elongated throat-feathers, in being more black on the throat, having a white ear-patch, and a totally different white wing-patch. The adult bird stands quite by itself.

26. Monarcha cinerascens perpallidus Neum.

Monarcha cinerascens perpallidus Neumann, Orn. Monatsber. 1924, p. 39 ("Nördl. Neu-Mecklenburg, Neu-Hannover, Portland-Inseln westlich von Neu-Hannover").

7 Å, 1 \, June and July 1923. "Iris dark brown. Bill and feet slaty blue." Also Storm or Squally Island and New Hanover. Cf. anteà, p. 208.

This is a very distinct form with rather pale upperside, throat and chest, and much paler abdomen, of a light ochraceous-buff colour. Wings, 3 84-85, \$\Q\$ 80-81 mm. The young female mentioned, p. 208, from New Hanover, belongs also to this form. Neumann has explained that the name fulviventris Hartl. cannot be used for this pale-bellied subspecies.

27. Monarcha hebetior spec. nov.

3 ad., differs from M. chalybeocephalus in its various races by being less glossy; the feathers of the crown are shorter, so that the distinct cap is not obvious, ear-coverts and sides of head are more blackish and practically devoid of gloss; the feathers of the throat and chest are shorter and looser, and they are of almost the same colour throughout, while in M. chalybeocephalus the distal portion is glossy steel-blue, the base glossless slaty black. Bill smaller, wings and tail shorter. Wings 73–78, tails 60-62 mm. "Iris dark brown, bill slaty with black tip, feet slaty black."—-\$\phi\$. ad. crown deep steel-blue, darker blue than in chalybeocephalus, back rufous, quills black-brown, secondaries with wider, primaries with narrower rufous outer edges; tail blackish brown, outer pair of rectrices with outer web rufous, the rest only with rufous outer edges. Wing 70, 72 mm.—-3\$\phi\$ juv. Resembles the adult female, but the crown is dark umber brown, not steel-blue, the bill is yellowish at base, and there is a rufous-buff wash across the chest.

Type of M. hebetior \Im ad. 30.v.1923. A. F. Eichhorn coll. No. 8479. We received 6 \Im ad., 2 \Im ad., 2 juv. of this most interesting new bird, shot in June and July 1923.

Anteà, p. 208, I mentioned two males of a Monarcha, shot on New Hanover,

together with Monarcha alecto chalybeocephalus. Since the new M. hebetior was discovered I have come to the conclusion—and Lord Rothschild agrees with me—that this New Hanover bird is a subspecies of M. hebetior hebetior. It agrees with the latter in the structure of the body plumage, but is much larger (wings 84 and 85), and slightly more purplish, chest even more glossless, and abdomen brownish black. I name this bird

Monarcha hebetior eichhorni subsp. nov.

Hab.: New Hanover. Type: ♂ ad. 3.iii.1923. A. F. Eichhorn coll. No. 8256.

The form from St. Matthias Island must therefore be called *Monarcha hebetior* hebetior.

28. Rhipidura rufiventris mussaui subsp. nov.

Subspeciei Rhipidura rufiventris gularis dictae simillima, sed notaeo pectoreque paullo saturatioribus, rostro multo latiore distinguenda.

Type: 3 St. Matthias Island 11.vi.1923. Albert F. Eichhorn leg. No. 8540. This form differs widely from *Rhipidura rufiventris albertorum* (Nov. Zool. 1924, p. 207) of New Hanover and *Rh. ruf. niveiventris* (Nov. Zool. 1914, p. 295), in having the middle of the abdomen buff, not white! The nearest form is *Rh. ruf. gularis*, but the bill is much wider, measuring at base about 10 mm., while in *gularis* it does not surpass 8 mm. The breast-band and back are slightly darker, more slate-colour. Wings 87–90.5 mm., the 87 ones labelled \$\bar{C}\$, the 90.5 ones \$\bar{C}\$. The abdomen in five fairly fresh-plumaged birds is buff, but in two in partially worn old plumage, moulting, upper wing-coverts and rump with some rufous-buff edges, indicating youth, it is white; these have wings of 82 ("\$\bar{C}\$") and 87 ("\$\bar{C}\$") mm. "Iris dark brown. Bill and feet black."

All specimens from St. Matthias Island, not sent from Squally Island.

From Rh. ruf. setosa of New Britain and Duke of York Islands this form and the near allies differ in the much narrower white edges to the inner secondaries.

29. Rhipidura matthiae Heinr.

Rhipidura matthiae Heinroth, Journ. f. Orn. 1902, p. 457. Pl. IX. fig. 2 (St. Matthias Island).

Eichhorn sent six adults, all labelled 3, and a juvenile specimen, collected in May, June, and July. The wings measure 72·5–74·5 mm. "Iris dark brown, bill black, feet slaty blue, dull slate, dark slate-colour." These birds agree well with the original description. The figure is also good, except that the back and tail are chestnut, not so red as in the figure, and the black merges gradually into the brown of the flanks. The not fully adult male, "3" 7.vii.1923, No. 8643, has the base of the lower mandible yellowish (in skin), the dark colour of occiput and chest is not pure black, but dark brown, and the abdomen is suffused with chestnut-red.

This *Rh. matthiae* has no very near ally, and one cannot conscientiously say that it is a subspecies of any known species. *Rh. dahli* appears to be quite different, though not known to me.

30. Lalage conjuncta Rothsch. & Hart.

Lalage conjuncta Rothschild and Hartert, Bull. B.O. Club, xliv. p. 51 (1924-St. Matthias Island).

One male 30. vii. 1923. No. 8691.

No other specimen met with. Upperside black with greenish steely gloss, lower rump white, upper tail-coverts partially wanting, those present with very narrow white edges. Quills black, greater upper wing-coverts white, the longest series with black inner webs; inner edges to primaries and outer edges to secondaries white. Tail black, outer rectrices with white tips. Lores black, sides of head from under the eyes white, abdomen and under tail-coverts light chestnut. Thighs black and white. Under wing-coverts white, spotted with black near outer edge. Left wing 93, tail 77 mm. "Iris dark brown. Bill black. Feet dark slate."

This species seems to stand by itself. By the colour of the underside it connects *Lalage aurea* with its chestnut under-surface, with the *L. karu* group with white underside but barred breast; with the *atrovirens* group it agrees in the pure white breast and absence of a white superciliary line. Unfortunately no female was obtained, which would have been of particular interest.

31. Edolisoma morio subsp. nov. (?).

We have received one adult male from St. Matthias, one adult male and one young bird, marked "\$\mathcal{z}\"," but must be a female, from Squally or Storm Island. These birds, that is to say the males, are like the males of remotum, from New Hanover, and only a shade lighter than our only male from Rook Island! The young bird, however, has three new feathers on the lower throat, which are buff and barred as in the female of rooki, and a few feathers on the rump, which are more like feathers of the rump of rooki than like those of \$\mathcal{z}\$ remotum, which has the underside unbarred rufous. Having only one male of rooki, and no adult female from Squally or St. Matthias Islands, and not being acquainted with the New Britain form (Edol. morio heinrothi Stres.), it would be hazardous to give a name to the birds from St. Matthias and Squally Islands; it must be added that they are also very much like admiralitatis from the Admiralty Islands, but very much larger, namely as large as rooki and remotum.

32. Phylloscopus trivirgatus matthiae Rothsch. & Hart.

Phylloscopus trivirgatus matthiae Rothschild and Hartert, Bull. B.O. Club, xliv. p. 52 (1924—St. Matthias Island).

Two specimens 15. vii. and 21. vii. 1923, both marked as males.

Subspeciei *Phyll. trivirgatus giulianettii* dictae similis, sed capitis lateribus striisque superciliaribus grisescentibus, nec flavescentibus, striis ocularibus griseis, nec nigrescentibus, pileo grisescentiore, tergo flavescentiore, rostro longiore primo visu distinguendus.

The iris is described as dark brown, bill blackish brown, base of lower mandible dull yellowish brown-colour, feet pale slaty-blue. Wings 51.5 and 53 mm.

The occurrence of a *Phylloscopus* on St. Matthias Island is of great interest, and we may suspect that other, hitherto unknown, forms may be discovered on

other of the Papuan and neighbouring islands. As giulianetti is connected with the Moluccan forms, they must be treated as subspecies.

33. Turdus dauma eichhorni Rothsch. & Hart.

Turdus dauma eichhorni Rothschild and Hartert, Bull. B.O. Club, xliv. p. 52 (1924—St. Matthias Island).

Turdus subspeciei T. dauma papuensis appellatae similis, sed alis multo brevioribus, uropygio tergoque fere similibus, plumarum marginibus subtus angustioribus, primo visu distinguendus.

Of this very distinct form Eichhorn sent us eleven specimens, shot on St. Matthias Island in May, June, and July 1924. The wings of the males measure 109-112, females 107-107.5 mm. "Iris dark brown. Upper bill blackish, lower light brown or horn-colour. Feet very light horn-colour.

In 1904 we received from Choiseul, Solomon Islands, a female with body plumage in partial moult, which we duly registered in Nov. Zool. 1905, p. 265, as "Geocichla papuensis subsp. nov. (?)." Since then we have seen more specimens of G. papuensis papuensis from New Guinea, and can say without hesitation, that the Choiseul bird is adult, though moulting, and differs from Turdus papuensis papuensis in the much narrower dark tips to the feathers of the underside; thus it resembles T. p. eichhorni, but the rump is much more rufescent, and the wing measuring 115 mm. is much longer. I name this form

Turdus dauma choiseuli subsp. nov.

Type: ♀ Choiseul Island, 13.i.1904. A. S. Meek coll. No. A1148.

The presence of the *Turdus dauma eichhorni* on St. Matthias, and of the *choiseuli* on Choiseul suggests the probability of other undiscovered Thrushes on other islands of the Bismarck Archipelago and the Solomon group.

Two eggs of *T. d. papuensis* were found on the Sattelberg in Kaiser-Wilhelms-Land in August 1911 and sent to us by the late Professor Förster. They are dull pale bluish with reddish brown spots, resembling certain eggs of Blackbirds and Redwings. As the eggs are broken to pieces measurements cannot be given.

34. Turdus melanarius heinrothi Rothsch. & Hart.

Turdus melanarius heinrothi Rothschild and Hartert, Bull. B.O. Club, xliv. p. 53 (1924—St. Matthias Island).

Turdus subspeciei Turdus melanarius melanarius dictae persimilis, sed pileo brunnescentiore, alis brevioribus.

Wings 111 to 112 mm. "Iris dark brown. Bill cadmium yellow. Feet yellow and brownish."

The browner head distinguishes this form from T. m. melanarius, as well as the shorter wing. The whole upperside and wings are browner, less blackish, but the specimen's plumage being partially worn, this difference requires confirmation by more specimens.

The presence of this Blackbird suggests that it or similar forms occur on other islands of the Bismarck Archipelago.

Named after Dr. Heinroth, the first ornithological collector who visited St. Matthias Island in 1901.

35. Pachycephala pectoralis sexuvaria Rothsch. & Hart.

Pachycephala pectoralis sexuvaria Rothschild and Hartert, Bull. B.O. Club, xliv. p. 50 (1924—St. Matthias Island).

 \eth ad. mari subspeciarum Pachycephala pectoralis finschi et goodsoni appellatarum similis, sed \heartsuit multo differt: tergo pileoque olivascenti-rufis, abdomine luteolo.

4 ♂ad., 1 ♂ in change from juvenile to adult plumage, 3 ♀ad., St. Matthias Island, May to July.

The adult males are very similar to those of P. p. finschi and pectoralis, the yellow of the abdomen somewhat between the two, not so orange as in P. p. goodsoni. Bill smaller than in goodsoni, same size as in finschi. The females have head like the back, olivaceous-rufous, the back not green, though the rump is slightly tinged with yellowish-green. Abdomen rich buff, in one tinged with yellowish brown, but not yellow. Smaller: wing 389-90, 389-88 mm. The young male was shot 39.89-90, 389-90,

36. Myzomela nigrita ramsayi Finsch. (?).

Myzomela ramsayi Finsch., Zeitschr. ges. Orn. iii. p. 21 (1886—Islands of Kapaterong and Nusa, near New Ireland).

Mr. Eichhorn sent us 4 \circlearrowleft ad., 1 \circlearrowleft juv., in moult, 1 \circlearrowleft ad., 2 \circlearrowleft juv., from St. Matthias Island. The adults are glossy black, wings \circlearrowleft 66–67, \backsim 63 mm. They would thus appear to have shorter wings than ramsayi, of which, however, we have only one adult male from New Hanover—see Nov. Zool. 1924 (anteà), p. 211, but I can now only make the wing 70 mm. long, not 72. If all specimens from the typical localities (and New Hanover?) are larger, the St. Matthias form would be separable, but this cannot be said, until a series from Kapaterong and Nusa is to hand.

"Iris dark brown. Bill black. Feet slaty-blue to dark slate."

37. Cinnyris jugularis flavigastra (Gould).

Nectarinia flavigastra Gould, Proc. Zool. Soc. London 1843, p. 104 (New Ireland).

4 3, 4 9 from St. Matthias, 1 3, 1 9 from Squally or Storm Island. The wings of the males measure 54 to 55 mm. A series from New Ireland must be examined to show if the latter have longer wings.

38. Erythrura trichroa eichhorni subsp. nov.

Erythrura subspeciei E. t. goodfellowi dictae simillimus, sed colore caeruleo frontis magis extenso.

Type: dad., St. Matthias Island 5. vii. 1923. No. 8635.

This new subspecies is nearest to *E. t. goodfellowi* from the hills of S.E. New Guinea (north to the mountains of the upper reaches of the Sepik River—and perhaps farther), Vulcan, Dampier, and Sudest Islands, but differs in the blue of the forehead farther; in *E. t. goodfellowi* it reaches in the middle as far as the eyes, while in *eichhorni* it extends, at least in the males, far beyond, over the vertex; the blue is also in the series a little lighter; in the females this is not quite so developed. Wings 57:5-60, in *goodfellowi* 60-63 mm.

E. t. eichhorni differs from E. t. papuana, from Arfak, in its smaller bill

and shorter wings and tail. E. t. woodfordi from Guadalcanar is also larger than E. t. eichhorni.

E. t. cyaneifrons (New Hebrides) has the bill thicker and much shorter than in E. t. eichhorni.

Mr. Eichhorn sent six adults and two young from St. Matthias, and two from Squally or Storm Island. The iris he marked as dark brown; bill, adult, black, juv. under mandible, tip and cutting edge of upper dull yellow, rest of upper black; feet of adult smoky horn-colour to dull blackish, young light smoky horn-colour.

39. Aplonis metallica nitida (Gray).

Anteà, p. 212. Common on St. Matthias and also found on Squally Island.